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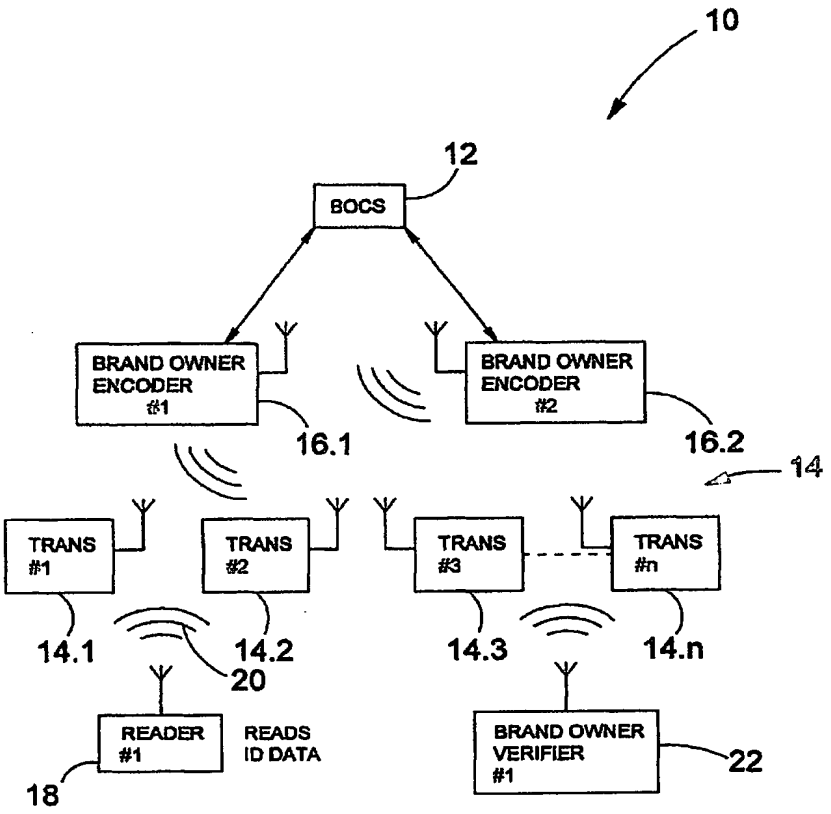
(54) Title: AUTHENTICATION OF RADIO FREQUENCY TRANSPONDERS



(57) Abstract: The invention describes a method of authenticating radio frequency (RF) transponders (14.1, 14.2, 14.3, to 14,n) in an electronic identification system (10), the system (10) also comprising an associated reader (18) and a verifier (22). At least one transponder encoder (16.1, 16.2) is provided for writing respective first watermark data into a memory arrangement of each transponder (14.1, 14.2, 14.3, to 14.n). A verifier (22) interrogates a selected transponder (14.1) to read data stored in the transponder (14.1), the verifier (22) using the read data to derive from its memory an algorithm and input data from which to derive second watermark data for comparison with the first watermark data and provide a signal indicative of the authentication of the transponder. Alternatively the comparison between the first and second watermark data can take place in the transponder (14.1) which is arranged to provide a signal to the verifier (22) as to the authenticity of the transponder (14.1).

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